Linking Communities to the Montreal Process Criteria and Indicators

Baltimore County Forest Sustainability Issues and Indicators Forum June 10, 2003

Issues, Goals and Indicators Summary

Criterion 1 Biological Diversity

Key Issues:

1. Inventory of species
2. Impact of non-native, native, domestic species on ecosystems
3. Forest fragmentation

Goal: Maintain or increase biological diversity of native forest-"dependent" species in Baltimore County to improve the quality of life.

Indicators:

1. Extent of forest fragmentation
2. Number of rare elements in Baltimore County forests
3. Number of forest 'dependent' species
4. Extent of area by forest type and by age class or successional state
5. Number and extent of non-native organisms in County's forests

Criterion 2 Productive Capacity of Forest Ecosystems

Key Issues:

1. Education
2. Conversion of land use and land cover to non-forest
3. *Sustainable* management plan

Goals:

1. Enhancing and maintaining the capacity of existing forest ecosystems
2. Generating new and productive forested areas using sustainable management plans
3. Promoting education and awareness of the productive capacity of forest ecosystems

Indicators:

1. Area of forest land and net area of forest land available for timber production

2. Annual removal of wood products compared to the volume determined to be sustainable
3. Total growing stock of both merchantable and non-merchantable tree species on forest land available for timber production
4. Area of public forest land with a sustainable management plan and
5. Area of private forest land with a sustainable management plan
6. Annual removal of non-timber forest compared to the level determined to be sustainable
7. Number of acres of timber productive land harvested from natural forest ecosystems vs. tree plantations

Criterion 3 Maintenance of Forest Ecosystem Health and Vitality

Goal:

I) Invasive/exotic/native species will be managed to limit impacts on sustainability.

Indicators:

1. List of exotic/invasive species
2. Area and percent of forest impacted beyond a [threshold] of damage
3. Monitor spread of invasives/exotics

Goal:

II) Increase implementation of management plans that maintain forest health.

Indicators:

1. Percent (or acres) of forests with a sustainable forest management plan
2. Percent (or acres) of implemented management plans

Goal:

III. Develop and implement a plan for decreasing fragmentation and increasing forested area.

Indicators:

1. Area of forest in County
2. Size of forested patches

Criterion 4 Soil and Water Resources

Key Issues:

1. Loss of forest land affecting water quality, quantity, and stream function
2. Maintaining and increasing forest in key sensitive areas (buffer, recharge, reservoirs)

Goal: Manage Baltimore County Forest for protection and improvement of soil and water resources

Indicators:

1. Percent of forest land under permanent protection (through easements, etc.)
2. Percent of streams (miles) protected by forest buffers/miles restored
3. Percent of forest land by watershed
4. Percent of stream miles/waters meeting "good" IBI – Index of Biological Integrity
5. Percent of streams supporting trout populations (or some measure of percent natural species)
6. Acres of potential recharge areas in forest cover
7. Percent/miles of unstable streams (deviate from historic or stable flow and timing)

Criterion 5 Global Carbon Cycle

Key Issues:

1. Lack of inventory/information on present condition
2. $$ for acquisition and management
3. Inability to respond to existing market demand due to lack of resources/infrastructure

Goal: Increase opportunities for participation in carbon markets

Indicators:

1. Quantity and quality of ecosystem and carbon pool, by forest type, age, class, successional stage, land use, physio region
2. $$ expended buying credits (acquisition and maintenance)
3. Number of acres afforested and reforested under program
4. Number and geographic location of buyers and sellers of credits

Criterion 6 Long-term Multiple Socio-economic Benefits

Key Issue:

Timber harvest is not a major economic factor in Baltimore County but management, including cutting, may be important for forest health

Goal: Expand forest land base and manage for: recreation, forest health, aesthetic, and water supply purposes, with minor income/revenue enhancement from selective cutting.

Indicators:

1. $ value of forest setting for residences
2. Economic value of protected water supply
3. $ value of selective cuts on managed forests
4. Area and percent of forest land managed for recreation, as percent of total forest
5. Area (total acres) maintained for residential aesthetic values
6. Local budget for forest assessment, inventory, research, planning, regulation and education.

Criterion 7 Legal, Institutional, Economic Framework

Key Issues:

1. Public and private ability and willingness to manage forest lands
2. Protection for upland forest
3. Capacity for planning, regulating and assessing forest
4. Paradigm shift

Goal: Establish laws, regulations, policies and incentives to value, protect and increase sustainable forest.

Indicators:

1. Percent of forest that is protected and sustainable compared to Y2K
2. Number of sustainable new builds and retrofits
3. Number of schools that include sustainable forest in their curriculum
4. Amount of funding sustainable forest compared to Y2K
5. Number of Baltimore county and state agencies which include sustainable forest objective
6. Number of acres covered by a new tax code
7. Number of developers and architects building sustainable buildings
8. Number of economic and social incentives focus on sustainable forest

What else? What issues or concerns didn't fit into one of the seven criteria?

A. "Financing" Sustainable Forests – who benefits, who pays and measuring values to establish incentives
B. Education and Decision-making for "Stewardship"
C. Regulatory authority and enforcement within an ecosystem management framework
D. Linkage of process, information, measures and decisions across political boundaries and landscape scales